

ABSTRACT OF THE DISCLOSURE

A system and method for facilitating design and analysis of a selected component, subsystem, system, or structure of an aircraft. In one embodiment the system and method analyzes an aircraft's electrical power generation and distribution system (EPGDS). The system and method autonomously estimates all screen variables from two inputs, those being the number of engines and maximum takeoff weight, and further allows a designer to override any variables relating to the EPGDS of the aircraft, including the configuration of the EPGDS. Variables can be locked in by the designer such that the system will use those locked in variables in subsequent calculations. The invention enables the designer to quickly predict the system attributes of dependability cost, reliability and maintainability at the same time the normal mass properties of weight and body station center of gravity are estimated for a wide range of components and subsystems of the EPGDS, in addition to the overall EPGDS itself.

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